TECHNOLOGY DEPT.

First Copy

A National Newspaper for Every Branch of the Industry

Automotive Daily News

★CARS★ SHOP EQUIPMENT TRUCKS ★★AVIATION★★ PARTS ACCESSORIES ★TIRES★

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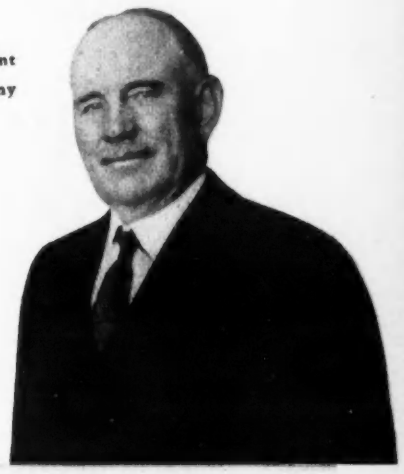
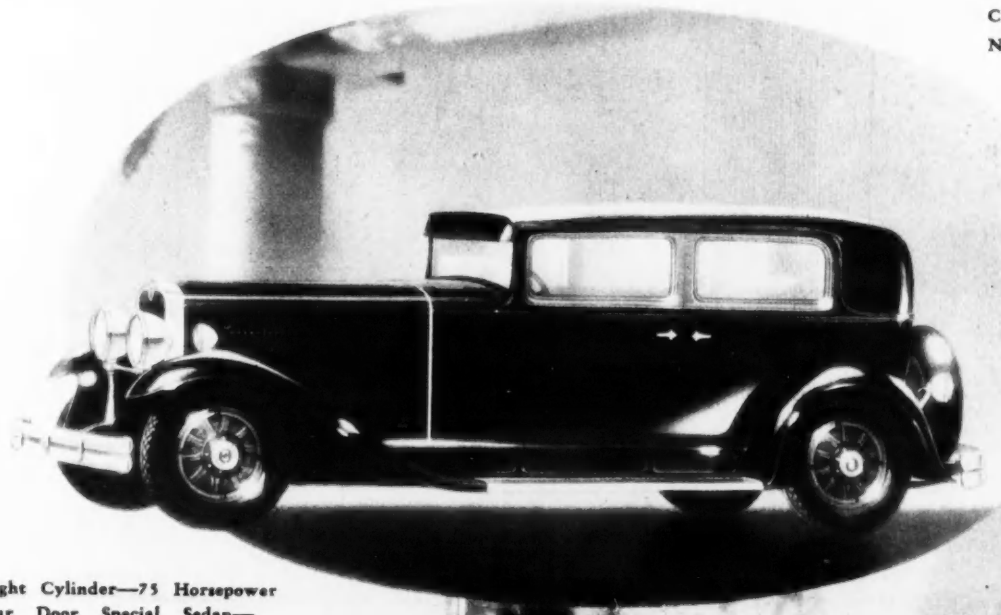
OCT 1 - 1930
DETROIT

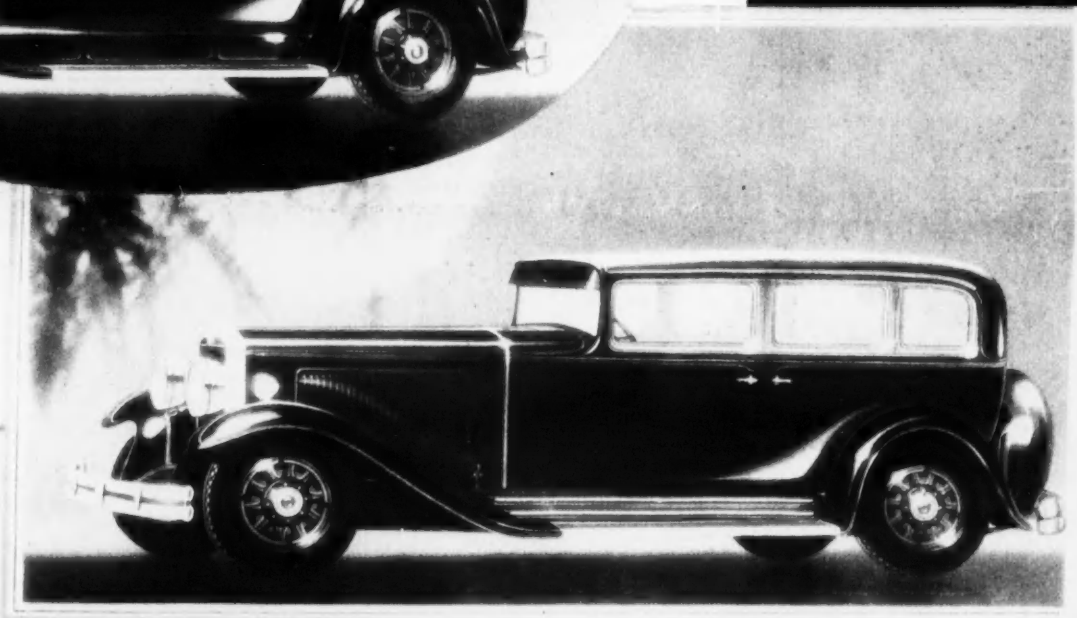
NASH NEW MODELS FOR 1931



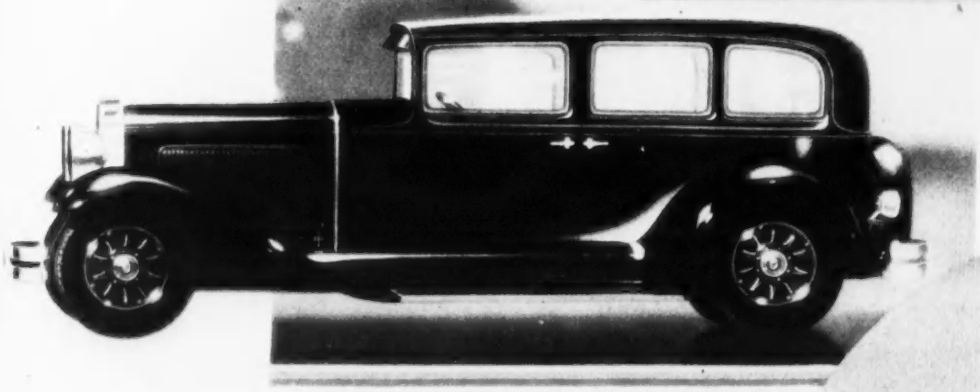
C. W. Nash, President
Nash Motors Company
Kenosha, Wis.



MODEL 877 - Eight Cylinder—75 Horsepower
5-Passenger—Four Door Special Sedan—
116¼" Wheelbase—$955 f. o. b. factory

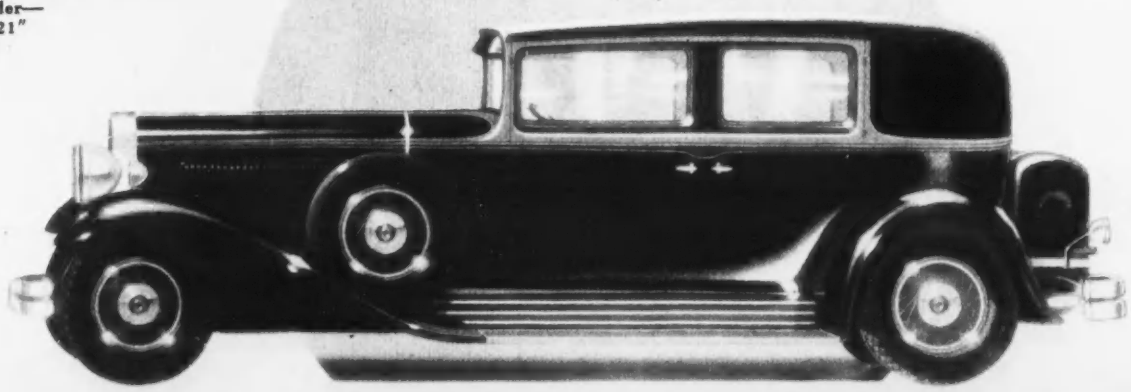


MODEL 660 - Six Cylinder—5-Passenger—Four Door Sedan—
114¼" Wheelbase—$845 f. o. b. factory.



MODEL 880 - Twin Ignition—85
Horsepower Eight Cylinder—
5-Passenger Sedan—121"
Wheelbase—$1295
f. o. b. factory

MODEL 897 - Twin Ignition—115 Horsepower Eight Cylinder—5-Passenger
Ambassador Sedan—133" Wheelbase
—$1825 f. o. b. factory



THE SUNDAY COURIER
Magazine 11
GRAVURE THE SUNDAY COURIER GRAVURE
8 CLASSIFIED THE SUNDAY COURIER CLASSIFIED 8
7 RESORTS TRAVEL AUTOMOBILES 7
6 BUSINESS REAL ESTATE BUSINESS REAL ESTATE 6
5 DRAMA—SCREEN ART SOCIETY 5
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2 SECOND NEWS THE SUNDAY COURIER SECOND NEWS 2
1 MAIN NEWS THE SUNDAY COURIER MAIN NEWS 1

..... ⊗ marks the spot . . . where automobile advertising gets it in the neck

THE above diagram by our gifted artist represents the usual New York Sunday newspaper—about three pounds in weight, with ten to fourteen sections, totalling about 200 pages. Large Sunday papers are undoubtedly looked at and read in some cities; but in New York, N. Y., on the one day of the week when most people can do what they please, they please to do something else.

One of the last few parts of this paper is known as the automobile section. In accordance with the quaint old custom, various and sundry optimists each year deposit considerable sums of money in these sections for the reproduction of automobile advertising. Subsequently reproduced, the said automobile advertising emulates the modest violet behind the mossy stone . . . . In our diagram, we have indicated this section as **X**—in this instance particularly significant as a symbol of the unknown.

In other and easier days, when the boys and gals would abandon their rocking chairs to see a horseless carriage pass, such procedure may have been good advertising. Today, however, no discernible portion of this metropolitan population pants to get any red hot news out of section **X**.

If these semi-secret advertisers are spending their money just to support the press, we modestly call their attention to one member of the fourth estate worthy of a little more support.

If, on the other hand, they wish to make sales for their expenditures, we urgently recommend an unusual New York Sunday newspaper—The News. It has no automobile section! It is small in size, with fewer pages; and it comes in one piece (except in Brooklyn and Queens where readers get an additional section). It is made to read on Sunday, without taking the whole day. It is lavishly illustrated and entirely interesting throughout. In consequence, it is read. The automobile pages are in the main paper, not in an aft section.

ON these automobile pages, in addition to reproduction we give an advertiser high visibility and attention value—with very little hokum, bologney or soothing syrup; the space costs us money as well as the advertisers.

And in this paper, we give the automobile advertisers the largest newspaper circulation in America—more than 1,600,000 copies. It reaches more of this market more thoroughly than any other paper in New York—more owners, more prospects. It reaches more of this market within 150 miles of New York than any other national publication. And per copy, per reader, per prospect, we charge them less—a lot less.

Automobile advertisers who want less secrecy and more sales from their advertising will do themselves a favor by (1) becoming acquainted with this unusual Sunday newspaper; and (2) using it. Investigate!

THE NEWS, NEW YORK'S PICTURE NEWSPAPER

Tribune Tower, Chicago + Kohl Building, San Francisco + 220 EAST 42nd STREET, NEW YORK

A National Newspaper for Every Branch of the Industry

Automotive Daily News

CARS · SHOP EQUIPMENT · TRUCKS · AVIATION · PARTS · ACCESSORIES · TIRES

NEW YORK, THURSDAY, OCTOBER 9, 1930

NASH OFFERS 3 8S AND A 6 FOR 1931

Exhibits at 1931 Shows Will Exceed Last Year; Drawing Set for Today

More Than 54 Makes of Cars Will Be Displayed At New York and Chicago, as Against 45 in 1930

WASHINGTON, D. C., Oct. 8.—More than 54 makes of cars, trucks and taxicabs will be exhibited at the National Automobile Shows at New York and Chicago next January, according to the list submitted for the drawing of the members of the National Automobile Chamber of Commerce to be held here tomorrow in the United States Chamber of Commerce Building. This is nine more exhibits than last year.

The drawing was held in this city instead of New York, as in the past, because most of the manufacturers are attending the International Road Congress, which is also in progress.

At Grand Central Palace, where the New York Show will be held,

(Continued on Page 4)

No Peerless Front-Drive Is Scheduled

Special from A. D. N. Detroit Bureau

Detroit, Oct. 8.—J. A. Bohannon, president of the Peerless Motor Car Company of Cleveland, was chairman of the first session of the production meeting of the Society of Automotive Engineers, held here.

His presence in the city brought from him an official denial of the widespread rumor that Peerless had in mind bringing out for the shows a twelve-cylinder front-drive, built under the French Buccali patents. Mr. Bohannon told his friends at the S. A. E. that while he owned the Buccali patents, the farthest thought in his mind at the present was a front-drive Peerless.

Bohannon's Detroit visit was pro-

(Continued on Page 5)

Heads Hudson Sales

W. R. TRACY, former manager of the Oakland Motor Car Company, has been named sales manager of the Hudson Motor Car Company, succeeding A. J. Eldred, resigned, according to advices from Detroit today.

S. A. E. PRODUCTION MEETING HAS DIVERSIFIED PROGRAM

(Special from A. D. N. Detroit Bureau)

DETROIT, Oct. 8.—The second and last day of the ninth production meeting of the Society of Automotive Engineers was more diversified than yesterday's initial session.

In the morning the third technical session was held under the chairmanship of Gordon Lefebvre, vice-president of the Oakland Motor Car Company. There were only two papers, the first, "Conveyors in the Automotive Industry," by J. H. Hough of the Mathews Conveyor Company, and the other, "Wear Allowances and Tolerances on Gauges," by E. J. Bryant of the Greenfield Tap and Die Corporation.

In the afternoon the engineers visited the Plymouth factory and the forge plant of Chevrolet Motors. In the evening was held the production dinner, with the S. A. E. Detroit section as host, and with P. J. Kent as toastmaster. The speakers were John Younger of the Ohio State University and C. E. Wilson of General Motors.

The feature of yesterday's session was the large attendance of engineers showing that the subjects dis-

(Continued on Page 10)

Road Congress Urges Gas Tax Solely for Highways

WASHINGTON, Oct. 8.—A movement started yesterday at the sessions of the Sixth International Road Congress here to use gasoline taxes solely for roads was given further impetus at today's session by Alvan Macauley, president of Packard Motor Car Company and head of the National Automobile Chamber of Commerce.

Another series of sectional meetings today, and this afternoon the delegates took an excursion to Mount Vernon, home of George Washington, making an inspection en route of the new Mount Vernon Memorial Highway in nearby Virginia.

Tonight a brilliant reception by the secretary of state and Mrs. Stimson was on the program for the 4,000 delegates, of whom 450 represent sixty foreign countries.

At a meeting of the section on administration of highways, Mr. Macauley, declared the chief difficulty with good roads is financing.

"The advent of the motor car," Mr. Macauley said, "brought problems of financing, and with the increased use of automotive vehicles throughout the world these problems have increased.

"There is still no entire and complete agreement as to the best way of financing highways, but fortunately opinion is crystalizing as to the general principles involved.

A general agreement among the delegates, Mr. Macauley said, as to the essentials of sound financing would go far to settle the question for all time. The automobile requires only good roads to make the world's resources available to man and more and more it is becoming apparent, he pointed out, that the wealth of a nation is in direct proportion to the use made of its natural resources.

"With so great a reward in sight," he continued, "roads must be had. While we are in the habit of paying for some things in cash, we have also found it fair, in the case of large projects that are not only for our own use but for the use of our descendants, of spreading the cost

(Continued on Page 4)

FIRST COMPLETE EIGHT MONTHS' SALES FIGURES

FIRST complete new passenger car registration for the first eight months of 1930 by makes and states appears on pages 8 and 9 of this issue. Comparative figures for the first eight months of 1929 by makes and states appear also on pages 8 and 9 of this issue.

TWO 8'S ARE NEW TO LINE; PRICES ON 20 BODY TYPES RANGE FROM $795 TO $2,095

Automatic Chassis Lubrication, Downdraft Carburetion on All Eights; Improved Gearsets, New Instrument Panels Featured

KENOSHA, Wis., Oct. 8.—Four new automobiles, offered at the lowest prices ever established by the Nash organization, were announced today by the Nash Motors Company. Ranging in price from $795 to $2,025, the line comprises three straight eight series and a six, totaling twenty new models.

New Nash Prices

660 Series—114½-Inch W. B.	
660—Sedan (4-door)	$ 845
662—Coupe	795
662-R—Coupe (rumb. seat)	825
663—Sedan (2-door)	795
668—Touring	895
Tires, 5.00-19.	
870 Series—116½-Inch W. B.	
870—Sedan (4-door)	995
872—Coupe	945
872-R—Coupe (rumb. seat)	975
877—Spe. Sedan (4-door)	955
Tires, 5.25-19.	
880 Series—121½-Inch W. B.	
880—Sedan (4-door)	1,295
882—Coupe	1,245
882-R—Coupe (rumb. seat)	1,285
887—Town Sedan (4-door)	1,375
Tires, 5.50-18	
890 Series—124, 133-Inch W. B.	
890—Sedan (4-door)	1,565
891—Cabriolet	1,695
892—Coupe	1,695
892-R—Coupe (rumb. seat)	1,745
894—Sedan (7-pass.)	1,925
895—Limousine (7-pass.)	2,025
897—Ambassador	1,825
899—Victoria	1,765
Tires, 6.50-19.	

The new Nash Six models are of L-head motor construction. The new motor has a bore and stroke the same as last year's model, and features include in part: a completely machined, seven-bearing crank shaft lightened by hollowed crank pins, rifle-bored connecting rods for force feed oiling to the piston pins, the latest type aluminum alloy Invar strut pistons, improved carburetion with fuel pump feed, newly refined fan and water pump, equipped with a sealing ring instead of the conventional pump packing, and with thermostatic control of water circulation.

Additional features and equipment include a torsional vibration damper, oil filter and air cleaner; new easy operating clutch and silent transmission with ballbearing clutch release and cushioned clutch driven plate; double-drop frame; hydraulic shock absorbers, co-ordinated with individually tailored springs; cable operated, fully inclosed four-wheel brakes; Ross cam and lever steering system; four point, rubber cushioned motor suspension; co-incidental ignition-steering lock and dash board starting control. New, low swung design with added roominess is pro-

(Continued or Page 4)

CHEVROLET SALES CUT DOWN FORD LEAD DURING AUGUST

NEW YORK, Oct. 8.—Retail sales of new Ford passenger cars accounted for 38.1 per cent. of the total new car registrations in the United States in August, according to the complete registration statistics now available. This compared with 43 per cent. of the total accounted for by Ford in the preceding month.

On the other hand Chevrolet accounted for a larger proportion of the total August business than it was able to obtain in the preceding month. Chevrolet's share of the August retail sales was 23 per cent., as against 21.7 per cent. in July.

Both Ford and Chevrolet took a larger percentage of the business in August of this year than in the corresponding month of last year. Ford's 38.1 per cent. this year compares with 36.2 per cent. a year ago, while Chevrolet's 23 per cent. compared with 19.4 per cent. a year ago.

Here are the percentage figures for August, as compared with last year:

	1930	1929
Ford	38.1	36.2
Chevrolet	23.0	19.4

Ford sales in August amounted to 77,476, as compared with 109,372 in

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TODAY

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REFERENCE TABLES
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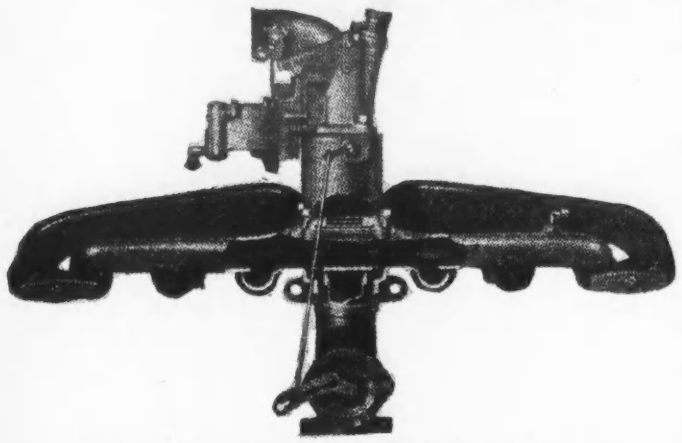
Nash Line for 1931 Offers Three Eights and a Six



Down-Draft Carburetor and Manifolding Nash 8-80

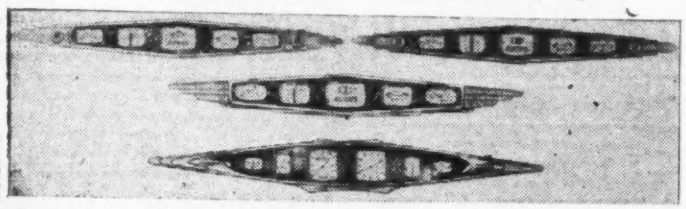
(Continued from Page 3)

vided in the extra large Nash-Seaman bodies.

Several major advancements are included in the Eight-90 motor, which are said to have increased its power 15 per cent., without increasing its fuel consumption. The bore and stroke are respectively 3¼ inches by 4½ inches. The horse power developed is 115, as compared to 100 in the former Twin-Ignition Eight. Twin type carburetion, with twin manifolding and duplicate fuel jets, is a feature of particular interest. This increase in power has materially advanced the speed, and the performance qualities at all speed ranges, according to Nash engineers.

One of the most important Eight-90 Series advancements is the new "safety transmission," which provides quick, positive control of the car, a shortened, easy shift, silence in second gear, and the ability to shift easily and without clashing of gears at any and all speeds. Safety in all speed ranges, in traffic where quick get-away is imperative and in negotiating mountainous roads and steep down-grades, has been

(Continued on page 5)



Instrument Panels of Four Nash Series

OIL HEAT

AND

TRANSPORTATION

Their part in raising the standard of living

● ● ● The world has progressed hand in hand with improving heating systems and transportation methods. One efficient mechanical device sold by you paves the way for another.

You can increase your profit by fully capitalizing your market.

Sell oil heat.

Make your overhead do double duty.

Protect your present investment.

● Send today for our booklet "Broaden Your Market" ●

OIL HEATING INSTITUTE
342 Madison Avenue New York

OIL HEATING INSTITUTE 3A
342 Madison Avenue, New York, N. Y.

Please send me, without charge, your booklet entitled, "Broaden Your Market."

Name.....

Address.....

DRAWING FOR 1931 SHOW SPACE TODAY

(Continued from Page 3)

the main floor and mezzanine, as is customary, will be occupied by complete passenger cars. The third floor will contain automobiles, commercial vehicles and accessories and the fourth floor will be devoted to accessories and the shop equipment section, the latter to be confined to the trade exclusively until 5 p. m. daily.

At Chicago the main floor of the Coliseum will house complete passenger cars, while the gallery and the second floor of the South Hall will have accessories and a shop equipment section. At both expositions a great majority of the accessory exhibitors are members of the Motor and Equipment Association.

The New York exhibition will be held January 3 to 10, and the Chicago show January 24 to 31. The following makes of cars were allotted space:—

Cars to be exhibited at the National Automobile Shows follow:—

PASSENGER CARS

Auburn, Austin, Buick, Cadillac, Chevrolet, Chrysler, Cord.

De Soto, Dodge, Duesenberg, Du Pont, Durant, Essex.

Franklin, Gardner, Graham, Hudson, Hupmobile, Jordan, La Salle, Lincoln.

Marmon, Moon, Nash, Oakland, Oldsmobile, Packard, Peerless, Pierce-Arrow, Plymouth, Pontiac.

Reo, Ruxton, Studebaker, Stutz, Viking, Willys-Knight, Whippet, Windsor.

TRUCKS

Chevrolet, Corbitt, Diamond-T, Federal, General Motors, Maccar.

Paige, Reo, Schacht, Stewart, S. P. A., Willys.

TAXICABS

Checker, Dodge, Yellow Cab.

URGES GAS TAX SOLELY FOR ROADS

(Continued from Page 3)

over a long time, even several decades.

Over French protests the congress went on record as urging the expenditure of taxes collected from highway users for highway purposes only.

The statement of policy was presented to the conference by Col. A. B. Barber, director of the national street and highway conference. M. Lucien Lipman, French delegate and chief engineer of the ministry of public works, immediately objected.

In the heated discussion which followed, the British delegate, Sir Seymour Williams of the British ministry of transport, and the German delegate, Dr. Werner Feilchenfeld, sided with Col. Barber. While not taking part in the debate, the delegates of sixty other nations voted in the affirmative when the vote was finally taken.

NASH MOTORS EARNS $1,777,270 IN QUARTER

Kenosha, Wis., Oct. 8.—The net income of Nash Motors Company for the quarter ended August 31, was $1,777,270 after depreciation, Federal taxes and after charging out expenses incurred in preparation of complete new line of automobiles comparing with $3,068,658 in same quarter of 1929.

For the nine months ended August 31, net income was $5,492,678, against $13,810,857 in the corresponding nine months of preceding fiscal year.

EXCEL RADIATORS

. . . are outstanding in design, in construction, in appearance!

Deal with automotive radiator specialists.

HEXCEL RADIATOR CO.
Milwaukee Wisconsin

SPARKS from DETROIT

* * *

Horn in the Rear

* * *

Bon Voyage

* * *

River Buses

* * *

Chris Sinsabaugh—Detroit Editor

AMOS E. NORTHUP, chief designer of the Murray Corporation, accompanied by Mrs. Northup, sailed Saturday for Europe to be gone five weeks. Of course, the Paris salon is his objective, but while he is on the other side he will visit England, France, Germany, Holland and Switzerland, studying design and trend of foreign coach designers for Murray and its custom body subsidiary, Dietrich, Inc.

Mr. Northup leaves us before we Americans have a chance to congratulate him on his latest creation, the new Reo, which will be displayed to the public next week. This, however, is not his only claim to fame in his line, for the records show that his art already has been widely known to the car-buying public on the Pierce-Arrow, Wills Ste. Claire, Jordan, Peerless, Marmon, Hupmobile Century, Dodge Senior and Willys-Knight.

* * *

OTHERS have been thinking about the horn-in-the-rear idea which was advanced in this column recently. Proof that the Automotive Daily News is widely and carefully read is furnished by the quick response I have had to the publication of the suggestion that a rear horn would fill a great need. From T. Munro, president of the Lasco Corporation of Philadelphia, comes the following:—

"I have had in the patent office for the last two years a horn and light combination for the rear of cars. The horn is a 'pip-pip' type, not so loud as the regular horn. It does not need to be, as the sound coming from the rear of the first car is easily heard by the car following. It is actuated by the brake pedal. As the brake pedal is pressed down you get the 'pip-pip' sound from the rear and the red light flashes. As you follow through on the brake the horn contact is broken, but the red light remains. I submitted the horn to a number of distributors and one big car plant in Detroit, and all were anxious to have it.

"I heard only one objection to the rear horn, and that was from a man who feared his wife would know the time he arrived home at night, but I pointed out to him that there was a cut-out on the horn that would save such embarrassment.

"Just think of following a car down Woodward Avenue in Detroit. When there is a slow up you get the 'pip-pip' sound which brings to the man back of you the red light. We are so used to red lights these days that we scarcely notice them. A horn 'pip-pip' in sound is a means of attracting the eye to the traffic light. It also is helpful in backing up or making a right- or left-hand turn.

"I enjoyed reading your article about the rear horn. My first job each morning is to read the Automotive Daily News, for our business is almost entirely with the manufacturing plants, so I find the paper both interesting and useful."

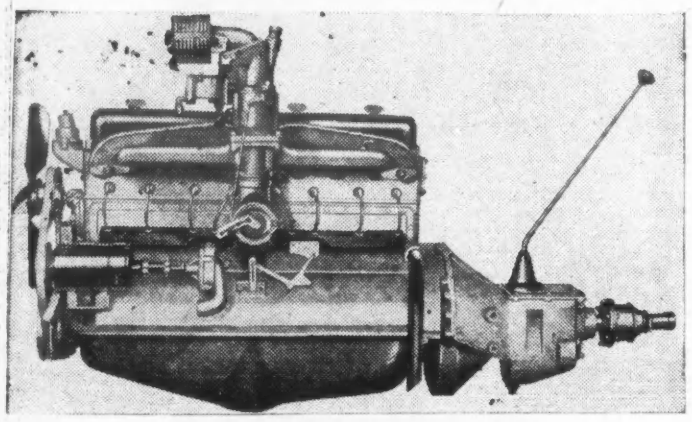
* * *

LINCOLN always makes an extra effort to ready itself for the annual salon, and this year is no exception. One of Henry Ford's big cars will be shown at the Chicago Salon November 8 with a smart new Le Baron body, a roadster which becomes a standard collapsible coupe when the full trimmed top and side windows are raised to inclose the interior completely against cold or stormy weather. The body itself has many of the contours of an airplane fuselage and a low-lying top folds completely out of sight in a novel deck. The lid of the rumble seat is built in two sections, providing a comfortable back rest, yet rising only half of the usual distance and adding finish to the body's rear deck line.

* * *

WITH the bus service that will be put into commission with the opening of the new tunnel under the river from Detroit to Windsor, Ont., this city again will be marked 100 for originality. No other city boasts of a bus service operated for the one purpose of transferring passengers from one side of a river to the other through a tunnel. There will be thirty of these buses, made by the Twin Coach Company of Kent, O., and equipped with United States tires, and they are for tunnel operation only. At the Detroit end they will start at Cadillac Square and unload at the tunnel exit in Windsor. Each bus will carry forty passengers.

Nash Line for 1931 Offers Three Eights and a Six



New Nash 8-80 Valve-in-Head Engine

(Continued from Page 4)

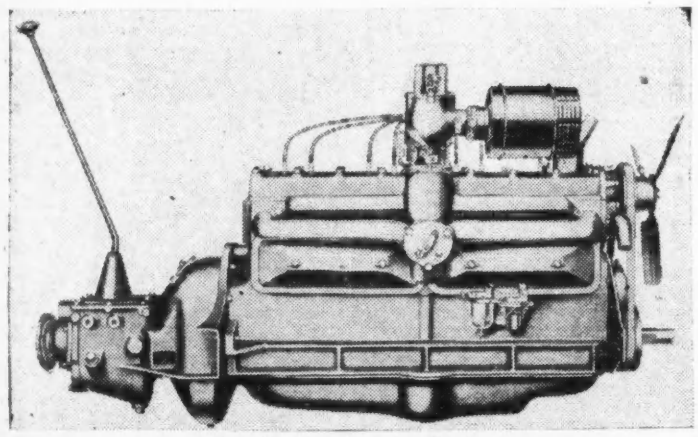
accomplished by the helical gear design and the constant meshing of second gears. This development, in addition to an arrangement of jaw clutches, permits a short, unhampered shift from second to high unit a degree of hardness which greatly increases its wearing properties.

In the new Eight-70 Series, Nash has brought out a new low-priced, quality straight eight. Built on a 116-inch wheelbase, the new models are big cars in every respect.

Rich appointments feature the bodies, including mohair upholstery, smoking sets on each side of the rear seat, smartly patterned interior wear, silver finished and modern instrument panel.

The high compression, high turbulence motor of L-head design, with a bore of $2\frac{7}{8}$ inches and stroke of $4\frac{3}{8}$ inches developes more than seventy-five horsepower. It is fitted with aluminum alloy pistons, rifle-bored connecting rods, nine-bearing crankshaft with vibration damper, down-draft carburetor, which is claimed to improve starting, acceleration and motor operation. Other engineering features include Bijur automatic chassis lubrication, hydraulic shock absorbers and Ross cam and lever steering system.

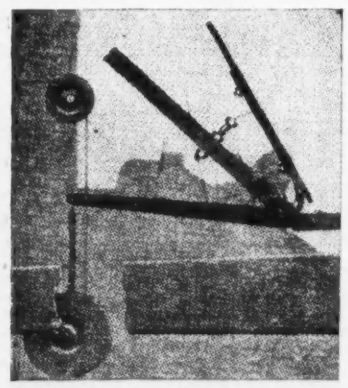
Features on the 8-80 includes: Wheelbase, 121 inches; twin ignition, valve-in-head, straight eight motor, with a three-inch bore and $4\frac{1}{4}$-inch stroke, developing eighty-five horsepower; down-draft carburetion, with fuel pump feed; aluminum alloy Invar strut pistons; connecting rods drilled for oiling to piston pins; balanced nine-bearing crankshaft, with hollowed crankpins and vibration damper; self-oiling fan; six-bearing camshaft, with silent roller chain drive; new, easy-shift transmission and easy operating clutch; full force feed motor lubrication; new Bijur automatic chassis lubricating system; new Gemmer worm and roller steering system, with stabilator to ward road shocks from the wheel; double-action hydraulic shock absorbers and metal-covered, permanently lubricated springs; cable actuated, self-energizing four-wheel brakes; automatic built-in radiator shutters, and effective new insulation of dash board and floor boards.



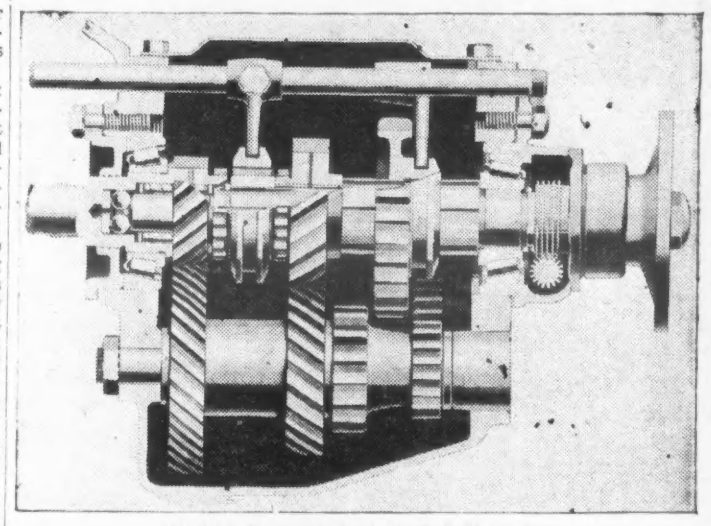
New Nash 8-70 Series Engine

speeds and vice versa. Cushioned clutch action completes the improvement in transmission and clutch units.

On wheelbases of 133 and 124 inches and equipped with new bodies, the Eight-90 models are powered by the Nash twin-ignition, high compression, straight eight power plant, including a nine-bearing, counterbalanced crankshaft with hollow crankpins, doweled bearing caps and torsional vibration damper; drop forged, aluminum alloy connecting rods and aluminum alloy pistons; six bearing camshaft with frictionless chain drive; full force feed motor lubrication and fully machined combustion chambers. New, Bijur automatic chassis lubrication which reaches twenty-two chassis points as the engine runs, steel encased, life-time lubricated springs, double action, hydraulic shock absorbers, are additional mechanical features of the former twin-ignition eight. Complete insulation of the body from the frame, felt sealed floor boards and insulation of the dash panel on both sides adds materially to driving comfort. Refinement of the entire cooling system includes large capacity radiator, thermostatically controlled radiator shutters, self oiling fan and new, nitrided pump shaft, which gives this important



Ingeniously arranged pulleys ease action of accelerator pedal, starter, choke and other driving controls.



"Safety Transmission" Nash 8-90 Series

BOHANNON DENIES FRONT-DRIVE RUMOR

(Continued from Page 3)

ductive of rumors, and they seem well authenticated, that the Peerless company has something up its sleeve which it will spring at the proper time, probably along in March or April. Gossip has it that it will be a multi-cylinder engined car of high horse power, but of so light a weight that it will astonish the critics. It will not be front-drive.

The Peerless president seemed in a happy mood while here and his friends say his high spirits come from the company's approaching financial statement, which will, it is said, show it to be in excellent shape as regards its cash position, without any frozen inventories or commitments. It also is pointed out that Peerless has gone its even way, selling its cars without price reductions and announcing new models.

Those who have looked over the books say that Peerless as it stands today has attracted new and strong capital and is ready for a vigorous campaign in 1931. Among those who are underwriting Peerless is said to be Ross W. Judson, late chairman of the board of Continental Motors, who, now that he has retired from Continental, will devote considerable of his attention to the Peerless Company and its affairs. In addition to Mr. Judson there are several other prominent automotive leaders who hold big blocks of stock, it is said, in addition to strong Cleveland interests not at present identified with the automobile industry.

CHEVROLET SALES CUT DOWN FORD LEAD DURING AUGUST

(Continued from Page 3)

the preceding month and 137,960 in the corresponding month of last year. This was a decline of 29.2 per cent. from the preceding month, as compared with a seasonal decline by the whole industry of 19 per cent. The Ford falling off from the corresponding month of last year was 44 per cent., as compared with a decline by the entire industry of 46 per cent.

Chevrolet sales in August were 46,807, as compared with 56,129 in the preceding month and 74,196 in August, 1929. This was a seasonal decline of 16 per cent., as against the 29 per cent. drop by Ford and 19 per cent. by the industry as a whole. The Chevrolet decline from a year ago was 36 per cent., as against the industry's decline of 46 per cent. and the Ford falling off of 44 per cent.

For the first eight months of the year, Ford sales amounted to 871,374, equivalent to 41.3 per cent. of the total, as compared with 32.8 per cent. of the total in the corresponding period of last year.

Chevrolet registrations in the first eight months of 1930 were 494,217, equal to 23.4 per cent. of the total, as compared with 19.9 per cent. of the total business obtained by Chevrolet in the corresponding period of last year.

MOTORISTS ASSOCIATION TAKES NEW QUARTERS

Washington, Oct. 8.—The American Motorists Association is now located in the Blackstone Hotel, at 17th and K Streets N. W., this city.

INDICATES VISCOSITY
VISCO-METER CORPORATION · BUFFALO
ACCURATELY ALWAYS

Visco-Meter is a new device which accurately indicates the *quality* of lubricating oil in a motor car.

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VISCO-METER CORPORATION
310 Grote St. Buffalo, N. Y.

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Automotive Daily News

"Of, By and For the Entire Automotive Industry"

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Member A. B. C.

THURSDAY, OCTOBER 9, 1930

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Cheap as Dirt

FROM long familiarity the phrase "cheap as dirt" has lost a good deal of its significance. It never occurs to any one that the time-worn descriptive could ever be literally true. Business depressions sometimes bring literal truth to statements generally meant only figuratively.

At the present moment rye is selling for about 46 cents a bushel of fifty-six pounds in the produce market in New York city. Good topsoil, just high class dirt for use on backyard gardens in that same city, brings $3 a barrel in that same metropolitan city and the barrel contains 200 pounds of dirt. Work out the sum in simple arithmetic for yourself and learn that cheap as dirt today might be written cheaper than dirt.

It often happens that during periods of business depression staple products are forced down to ridiculous price levels by the march of economic events. Hogs have been known to sell, dressed and in the open market, for less than it cost to raise them. Grains today are selling at price levels that leave their producers no hint of profit on their investment and labor, to say nothing of living needs.

In the securities markets at the present time there are stocks of companies as sound as banks which are selling at price levels that will yield interest rates far above the 6 per cent. that is usually considered the limit for safe investment.

It is in times such as these that the foundations of future fortunes are laid, not in the boom times when the public is buying blindly anything offered in the securities market. But be it noted future fortunes are not being founded by gentlemen who are buying stocks on margin in the hope of sudden wealth. The present is the opportunity of the investor, who picks with some reasonable degree of common sense.

Steel Revives

OUTPUT of steel ingots during the past week has turned upward to 61 per cent. of the industry's capacity, according to Iron Age, which compares with 58 per cent. during the two preceding weeks. This revival has occurred in spite of the fact that two of the best customers the steel people have, the railways and automotive plants, have not yet started buying in their normal quantities. This makes the news doubly significant.

Steel prices are tending to harden somewhat, and as this occurs buyers are beginning to protect themselves by commitments for future delivery. It is reported that steel makers have refused a number of contracts offered for steel deliveries through April 1 at current prices, indicating a belief in revival and higher prices.

While steel may not be the determining factor in recovery, it is one of the factors to which we must look, and the improved conditions in this industry are encouraging to the hope of a general and sure, if slow, advance in all business.

WILLIAM FRASER, president of the National Association of Credit Men, recently told that organization that business failures in 1930 would probably involve the tidy sum of $1,000,000,000. "To this," he pointed out, "must be added the losses arising from many failures that never reach the bankruptcy courts. Even the richest nation in the world cannot go on marking off such a tremendous bad debt loss year after year."

And the best informed authorities hold that three-quarters of all business failures are preventable, if the bankrupt would follow the laws of scientific business administration.

Tolerances on Gauges

(The following is, in part, a paper presented before the ninth national production meeting in Detroit, yesterday):

By E. J. BRYANT
Greenfield Tap and Die Corp.

Definite wear tolerances should be set up for all gauges in the factory, including master gauges, inspection gauges and production gauges. A definite time should be set for inspection of each gauge and a record made of the findings of the inspection. In some factories each gauge is numbered and on a card bearing this number is kept a complete record of the gauging sizes.

Disputes between the inspection department and production department regarding the sizes of work are of frequent occurrence, and are usually due to worn gauges and the gauge in the hands of the production department being smaller than that used by the inspector. With the proper reinspection of gauges and the alloting to the production department of the larger gauge, or the one with the greater amount of wear, and to the inspection department the gauge that is nearer the basic size, these disputes can be eliminated. This applies to all classes of gauges, but particularly to thread gauges where there are several elements that enter into the wearing surface of the gauges, such as angle error, worn sides, minor diameter, etc.

Plug gauges wear faster on the front end, so that an allowance must be made in setting up the wear limits at which gauges must be replaced, to take care of this. On an ordinary run of sizes, gauges should be rejected that have worn .0002 inch undersize ¼ inch from the front end and .0001 inch undersize at the back end.

There are several factors that cause excessive wear of gauges, such as small holes or tight work, and dirty work. Even the size of the handle has a decided effect upon the life of the gauge. The use of dogs, or "jitneys," greatly increases the wear of gauges.

Finish of Gauging Surface

The finish of the gauging surface is a very important factor. Tests indicate that the high, hard finish obtained by mechanical lapping increases the average life of the gauges from approximately 5,000 to over 11,000 holes before .0001-inch wear. The general average for ordinary gauging is 1,000 gaugings per .0001-inch wear on new lapped gauges.

A finely routed ground finish presents a numerous series of comparatively sharp ridges as a gauging surface. We know, from the experience of lapping this surface until it is clear of grinding marks, that it takes from .0001 to .0002 inch before the bottom of these ridges has been eliminated. This reduction in size can be made in a comparatively short time, whereas it takes much longer to reduce a gauge .0001 inch after a lapped surface has been obtained.

A shiny surface does not necessarily mean a smooth, flat surface. Only when this high polish is obtained by flat laps, as in mechanically lapping or the better grade of hand lapping, is a flat surface obtained, that is, a surface in which there are no deep cuts.

Soft spots in gauge surfaces are a source of uneven, and consequently excessive, wear. It requires special steels to consistently obtain surfaces which are 100 per cent. hard. It seems to be more important that the gauges be uniformly hard than they be excessively hard. Some tests have shown that comparatively soft gauges have worn longer than extremely hard gauges. It is usually necessary, however, to have a reasonably hard gauge to prevent accidental bruising or scoring of the surface. Soft steel and thinly case-hardened steel are liable to bruises, which upset the metal and consequently change the gauging size. Gauges that have met with accidents of this nature are difficult to repair in a satisfactory manner.

In the case of gauging extremely hard work, it is found that a hard gauge would only stand up from twenty-five to fifty gaugings, whereas a file soft gauge, carefully used, would gauge several hundred pieces before appreciable wear was evident.

Gauging of Different Materials

The material being gauged has an important bearing on the life of the gauge. Aluminum, brass and cast iron are all much harder on the gauges than soft steel. Some grades of aluminum cause the most excessive wear, particularly if there is any tendency to force the gauge. Dry brass parts, and particularly those with a high percentage of copper, can be gauged with less gauge wear if a small amount of light lubricant is used on the gauge.

Proper Gauge Material

The material from which gauges are made is important. General practice indicates that the crucible alloy steel with a high carbon content at the gauging surface makes the most economical and satisfactory gauge.

Chromium plating has been used with varying success. The lack of uniformity in results and the fact that no bond exists between the plate and the metal on which it is applied, making it liable to chip or peel off, has prevented its more general adoption.

Tungsten carbide gauges, although very high in first cost, can economically be used where there is constant production and excessive wear of gauges.

Allowances for Wear on "Go" and "Not Go" Gauges

"Go" gauges, such as "Go" plug gauges, may be made yarger than the minimum size hole usually by the amount that represents the production tolerance for the gauge, although in some instances a definite wear allowance is made in addition to the necessary production tolerance.

The wear on "Not Go" gauges is considerably less severe than on "Go" gauges. Generally three "Go" gauges will be used to one "Not Go" gauge. There are three practices regarding the applications of tolerances to the "Not Go" gauge. No allowances for wear other than the gauge makers' tolerance is provided on any "Not Go" gauges.

Some manufacturers split the gauge-maker's tolerance on the "Not Go" gauge, for instance, where the gauge-maker's tolerance is 0.0002 in., the "Not Go" gauge would be basic size plus or minus 0.0001 in.

The National Screw Thread Commission's report applies gauge-maker's tolerance minus on "Not Go" plug gauges.

The General Motors standard specification on "Not Go" screw-thread gauges is maximum hole size plus gauge-maker's tolerance applied as follows: The "Not Go" tolerance is maximum hole size plus gauge maker's tolerance as follows: plus 0.0002 in. on pitch diameter sizes 1-4 to 9-16 in. inclusive, and maximum hole size to 0.0003 in. on the pitch diameter on sizes 5-8 to 1½ in. The corresponding "Go" tolerance is from basic size to plus 0.0002 in. on sizes 1-4 to 9-16 in. and basic to plus 0.0003 in. on sizes 5-8 to 1½ in.

It will be seen by following the first and last practices that we are likely to have gauges that measure outside of the production tolerance.

However, with the general ruling that the "Not Go" cylindrical gauge must not pass through the hole being gauged, and that according to a ruling of a government inspection department the "Not Go" thread gauge must not enter more than two turns, it is easily demonstrated that a gauge 0.0001 inches or even less under the size of hole will easily pass through a hole that is to size. This would mean, according to the above ruling, that good work would be rejected if the gauge tolerance is applied minus and the "Not Go" gauge is undersize.

As a matter of fact, under most working conditions it is possible to pass a gauge through a hole that is 0.0001 inches smaller than the gauge by using pressure, but this is not recommend. If we are to rule that work is acceptable only when the "Not Go" gauge does not enter it is a fact that should be taken into consideration, and it would seem that the "Not Go" gauge should be permitted to have a plus tolerance.

For these reasons, it is evident that the product will be little if any over the production limits if either the first or last of these practices is followed. As the wear tends to reduce the size within the production limits, it would seem that the General Motors application on thread gauges is the more economical, and on properly designed parts would lead to no difficulty.

Applying the gauge production tolerance minus on "Not Go" gauges greatly reduces the working tolerance of the parts, particularly where these tolerances are close, that is, from 0.0005 to 0.0002 inch. Applying the "Not Go" gauge tolerance minus may reduce the production tolerance by as much as 20 per cent. or even more on some fine pitches with close limits.

There is no real danger from this application of tolerances as the permissible factor of error in work before the part fails or is not serivceable would, in all cases of good engineering, be much greater than the gauge tolerance, and in those cases where this is not true a special set-up for gauging such accurate parts would have to be made anyway.

Periodical Inspection of Gauges

Parts rejected in the general run of inspection are entitled to reinspection with gauges that give the

(Continued on Page 10)

O'SHEA MOTOR SELLS 921 USED CARS IN 9 MONTHS

Lincoln, Neb., Oct. 8.—O'Shea Motor Company, Ford and Lincoln dealer here, has sold 921 used cars since January 1, 1930, as of October 1. During a recent advertising campaign on used cars, seventeen used vehicles were sold in one day.

MEYER-WORTMAN, INC., NEW FORD DEALER AT DENVER

Denver, Col., Oct. 8.—Prominent among the new Ford dealership franchises granted recently was one given Meyer-Wortman, Inc., at West 38th Avenue and Tennyson Street. Otto Meyer, who is the active member of the new firm, has seen ten years of automobile selling and servicing, his field of activity for that time being at Loveland, Col. It is understood the firm will later occupy a new building near the present home of the concern.

EYE TESTS FOR EMPLOYEES OF WESTINGHOUSE LAMP CO.

Bloomfield, N. J., Oct. 8.—The New Jersey Optometric Association's survey of eyes of industrial workers will be carried to the Westinghouse lamp works, here, late this month or early in November. The associations' survey has been carried on six months. More than 6,000 persons have been examined.

COMING EVENTS

OCTOBER

2-12—**Paris, France.** Automobile Salon.
6-11—**Washington, D. C.** Sixth International Road Congress
6-11—**Washington, D. C.** American Roadbuilders' Association Convention
11-26—**Dallas, Tex.** Southwestern Automobile show.
13-15—**French Lick Springs, Ind.** American Society of Mechanical Engineers general meeting.
14-15—**Syracuse, N. Y.** New York State Dealers' Association Convention
15-17—**Washington, D. C.** Society of Industrial Engineers' convention.
16-25—**London, England.** Olympia Motor Show
20-22—**Atlantic City, N. J.** National Hardware Association convention.
20-24—**Atlantic City, N. J.** Middle Atlantic Automotive Jobbers' Association convention.
22-23—**New York.** Steel Founders' Society of America, Inc., meeting at Hotel Roosevelt.
22-24—**Pittsburgh, Pa.** Society of Automotive Engineers transportation meeting

NOVEMBER

3- 6—**Chicago, Ill.** National Tire Dealers Association Convention
7- 8—**Cleveland.** National Battery Manufacturers Association meeting at Hollenden Hotel.
6-16—**Berlin, Germany.** International Automobile Show
8-15—**Chicago, Ill.** Automobile Salon at Drake Hotel
13-19—**Cleveland, O.** Motor and Equipment Association and National Standard Parts Association, Joint Show.
13-23—**Paris, France.** Commercial Vehicle Salon
14-15—**Los Angeles.** Western Motor Clubs conference.

DECEMBER

6-17—**Brussels, Belgium.** Automobile Exhibition.

JANUARY

3-10—**New York.** National Automobile Show
8—**New York City.** Society of Automotive Engineers' annual dinner.
10-16—**St. Louis, Mo.** National Roadbuilders' show and convention.
17-24—**Detroit, Mich.** Annual Show, Convention Hall.
17-24—**Baltimore, Md.** Automobile Show.
19-23—**Detroit, Mich.** Society of Automotive Engineers' annual meeting.
24-31—**Chicago, Ill.** National Automobile Show.

MERCHANDISING
ACCESSORIES
EQUIPMENT

WHOLESALE

DISTRIBUTION
SHOP EQUIPMENT
REPLACEMENTS

INDIANAPOLIS JOBBERS REPORT SALES CONTINUUE ON UPGRADE

October Ushers in First Cold Weather as Further Stimulus; Winter Outlook Is Bright

INDIANAPOLIS, Ind., Oct. 8.—Considerably better feeling in jobber circles was evident here with October, bringing the first cool weather of the season, providing further stimulus for the market which has been on the upgrade, for the most part, since the close of June.

Winter supplies and a general increase in repair business with motorists aparently having already begun their annual preparation for cold weather driving have boosted the parts replacement business and lend a brighter color to the outlook as a whole, in the opinion of leading jobbers here.

At the headquarters of the Gibson Company here, operators of a chain of wholesale branches, business was said to have been ahead of last year although, it was pointed out that this was due largely to the fact that two of the company's principal operations had been acquired in the meantime, the South Bend and Kalamazoo branches having been taken over several months ago from competitive interests.

Alcohol shipments in car lots are beginning to arrive here, Gibson officials said, and this alone will give much impetus to the October volume. Garage and dealer demand for replacement materials and supplies was said to be of satisfactory nature and showing a decided increase in keeping with the trend of the last three months. The garage men, however, were held to be the main source of income, dealers depending largely upon their own parts departments for the parts necessary in conducting their service departments.

At United Motors Service it was said a remarkable improvement in all branches had been noticeable during the month of September, with a better condition existing not only in demand, but being reflected strongly in credit reports. Automobile dealers were said to be bringing a great deal of business to the local U M S branch, and both the service department and the replacement division felt very strongly the increasing demand for cold weather prepartory work.

The heater trade has set in with gusto, and the approaching season promises to be one of the best in the history of the automobile heater, jobbers handling that variety of merchandise are agreed. Gibson Company attaches said wholesale demand for this article leaned heavily toward the hot water heater, which is, of course, much more expensive than the old type exhaust heater.

J. E. Fettig, head of the National Auto Trunk Corporation, national distributor of trunks and luggage equipment and state distributor for HaDees hot water heaters, also predicted an unprecedented demand for the better and more expensive grade of merchandise. The National Company has thrived during the last two years on the trunk and heater business, and this year, more than ever, Mr. Fettig declared, the demand for automobile trunks is being carried over into the fall season, which, added to the rapidly increasing calls for heaters, should make the coming month compare well with the best in the history of the company.

PENNZOIL SALESMAN AT PORTLAND WINNER

Portland, Ore., Oct. 8.—W. R. Lee, Pennzoil sales representative in this district, won first place this past month in the Pennstar sales contest and leads Pennzoil sales forces everywhere in the Pacific Northwest in sales standing for the year to date, according to H. B. Sayer, Portland district sales manager of the company.

Lee has been presented with a gold Pennstar, coveted emblem of highest sales honors.

HAMPDEN ANNOUNCES NEW FOXY-NOB

Hampden Automotive Products, Springfield, Mass., announces the Foxy-Nob, designed to provide a place for the registration where it cannot be forgotten or mislaid.

Editor's Column

"ARE you ready for fall?" asks Simplex News. This question is applicable to both jobbers and service garages. A few years ago we all looked forward to the spring pick-up in repairs. Now, with the wide use of closed cars, heaters and other winter conveniences, we also have a fall pick-up. Cars must be in tip-top shape to be ready for winter.

"Never before has such an opportunity presented itseslf to the repair shops of this country as the opportunity just ahead of us.

"Conditions are just right for the biggest and most profitable season we have ever known in the service game," Simplex News continues. "Let's see. This country has just come through a bad depression. Money has been tight, car sales have been off, people have been forced to continue to drive their cars. The repair business has been a great deal slower than usual. The much-looked-for spring pick-up hasn't shown up, even in spite of the lack of new car sales. Most cars have been run a year or better without real repairs. What is the result? I don't have to tell you. Look at them on the street or follow a line of traffic.

"The entire trade realizes this condition, and never before has the service manager and independent shop man had so much assistance in building up his business on repair work. Two of the largest and most influential trade organizations are assisting him in reaching car owners through well-planned and carefully prepared advertising and publicity campaigns. The slogan which the Motor and Equipment Association has adopted is already becoming well known to the consumer—'Care will save your car.' The National Standard Parts Association has prepared for the use of shops this sign, 'Service that assures new car performance.' To this may be added as monthly changes twelve slogans calling attention to some specific service. Both of these campaigns were designed to accomplish the same purpose—to make the car owner conscious of a need for maintenance service.

"The last few years had found the public mind receptive to this kind of advertising. Now, with these things in front of you, as a maintenance man and a merchant, stop and consider. You want business. Go and get it. All of these things will be wasted unless you point out these facts to your customers. The average owners do not realize that motors must be in good condition, the transmission and differential grease must be lighter or that the valves must be ground or ring's replaced or batteries, starters and generators taken care of. If he is a customer of yours, however, he probably calls you many unpleasant things the first cold morning that he doesn't start or if his car freezes up or if some filling station sells him some alcohol or expensive non-freezing solution and it all leaks out, because you haven't told him to let you fix his radiator hose or repack his water pump. These are things to consider.

"With each succeeding fall, car drivers have demanded greater comforts for winter driving. That this is true is seen by the increasing seasonal business which has come into the shops and specialty service stations in the fall months. We are just entering another one of these seasons. Straw hats are being thrown in corners. One-fifth of the United States is now experiencing their first frosts and within another thirty days, 85 per cent. of the country will find need for cold weather preparation for their cars and motors.

"The sixty days that lie ahead of us is the second seasonal period of the year when it is natural for the car owner to seek service on his car."

Certainly, now is the time to get busy for this market that is offering us a larger volume than ever before. Today there are 3,000,000 more cars on the road than there were twelve months ago—26,500,000 in all. Almost all of these cars must be prepared for winter driving. All cars, except those few that do not have a water cooling system, must use some sort of an anti-freeze solution in their radiators, but it doesn't do any good to put an anti-freeze solution in the radiator unless all the leaks in the cooling system are stopped. Anti-freeze solutions don't cause leaks, they simply show them up, and it is mighty expensive to keep filling the radiator with some costly non-freezing compound. Realizing this, at the time of putting in the first solution the car owner will visit a shop.

TWO PARTS COMPANIES CONSOLIDATED IN KELSO

Kelso, Wash., Oct. 8.—W. C. Bellows, of the Standard Auto Parts, and Frank Sanborn, of the Rogers Auto Parts, have announced the consolidation of these two pioneer firms here. The consolidated auto parts company will be the largest firm of its kind in Cowlitz county.

The new company will be operated under the name of the Standard Auto Parts, in the building formerly occupied by the Rogers Auto Parts, at Pacific and Pine Streets. The enlarged business will carry a complete parts service for all makes of automobiles, with a machine and work shop in connection.

NEW WINTER ARTICLE OFFERED BY LIPSCHULTZ

Lipschultz Brothers of St. Paul is just bringing out a new winter article for automobiles known as Line a Vent, to go inside of the hood. The manufacturer says that the item is designed to keep the heat in and the cold out and is easy to install. They are made in two sizes to fit most cars.

NEW HAVEN CLOCK CO. BRINGS OUT NEW ITEM

The New Haven Clock Company of New Haven, Conn., announces a new eight-day clock and mirror in colors, listed at $9.75. It is described as non-glare glass and available in gun metal, gold or amethyst. The description says that they are sized to fit the present mirror brackets in the car, easily attached.

DURKEE-ATWOOD OFFERS FENDER SPLASH GUARDS

Durkee-Atwood Company of Minneapolis offers the Universal fender splash guards, made of heavy rubber material, attached by means of small metal clamps.

NEW IN NEW YORK
The Hotel Wellington
7th AVE. at 55th ST.
SINGLE
$2.50—$3.00—$3.50
DOUBLE
$3.50—$4.00—$4.50
(all rooms with private baths)
Weekly Rates at Substantial Reductions
750 ROOMS
A KNOTT HOTEL

Give ETHYL *a fair chance*

ETHYL

The active inaredient used in Ethyl fluid is lead.

DON'T mix Ethyl Gasoline with a half tankful of ordinary gasoline if you expect to get Ethyl performance. The amount of Ethyl fluid in a gallon of Ethyl Gasoline is little more than a spoonful; so naturally when you dilute it you lessen the improvement it makes in your motor.

Buy Ethyl Gasoline when your tank is almost empty and you'll always get the performance that makes it the biggest selling motor fuel in the country, greater *power*, quicker *pick-up*, and *cooler, smoother, knockless* engine action.

All Ethyl Gasoline is thoroughly tested to meet the Ethyl requirements of quality, both at the mixing point and by actual inspection of gasoline taken from Ethyl pumps throughout the country.

You know what you are getting when you buy from pumps that carry the Ethyl emblem. We know you will like it and come back for more. That's why we ask you to test it undiluted. Give Ethyl a fair chance. Ethyl Gasoline Corporation, Chrysler Building, New York City.

ETHYL GASOLINE

Hotel Sinton
Cincinnati

THIS.... AND MORE

A luxurious lobby, splendid display rooms, private banquet and convention rooms, five different dining rooms and service throughout that anticipates your every wish. The Hotel Sinton is famed for its hospitable and friendly atmosphere. You always feel at home here!

Bath and Servidor in Every Room

Tariff $3.50 up

Hotel Sinton
Cincinnati's Finest Hotel
John L. Horgan
MANAGING DIRECTOR

Service Notes

Newark, N. J., Oct. 8.—Albert E. Glasser is in Detroit attending the Chrysler national service managers' class being held under the direction of executives of the engineering, manufacuring and servicing departments of Chrysler Motors. Glasser is service manager of the DeCozen Motor Company, state Chrysler distributor, and is one of the oldest members of the organization in seniority, joining Alfred De Cozen in 1916.

Springfield, Mass., Oct. 8.—The Van Norman Machine Tool Company has recently opened a branch office in Cleveland, at 315 Williamson Bldg. This location is across the square from the Cleveland Hotel and is in charge of C. E. Holmes, territorial supervisor.

Passaic, N. J., Oct. 8.—The Gulf Refining Company will soon open its new station at Passaic Street and Columbia Avenue, making the third gas station in Passaic. The new station will give twenty-four hour service. There will be complete lubrication service.

NEW PASSENGER CAR REGISTRATIONS FOR FIRST

NAME OF CAR	Alabama	Arizona	Arkansas	California	Colorado	Conn.	Delaware	Florida	Georgia	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Mass.	Michigan	Minn.	Miss.	Missouri	Montana	Nebraska
Auburn	5	9	13	701	58	231	34	59	39	11	699	292	155	33	75	44	24	68	429	138	86	3	198	29	41
Austin	4	4	11	224	21	47	6	33	24	10	81	55	47	33	24	22	14	18	85	130	44	12	64	1	16
Buick	558	402	381	6157	1022	2023	345	872	719	272	6236	1818	1307	1214	487	510	661	1227	4285	4078	1303	519	2117	281	888
Cadillac	25	9	35	793	31	259	45	69	47	4	549	114	60	34	34	30	68	65	452	479	65	12	130	14	15
Chevrolet	6189	1756	5116	26426	5761	5948	1339	6242	6599	2423	29775	13641	19287	10578	7983	5697	2976	8429	14343	22090	14685	5975	20974	2779	10058
Chrysler	216	103	379	3412	398	1041	164	497	271	134	3318	1081	888	474	618	377	413	634	2082	1454	1187	367	1038	210	527
Cord	1	3	3	225	9	16	4	29	11	2	233	81	19	7	12	2	4	8	63	49	14		34	11	13
De Soto	88	147	173	3062	232	842	38	191	157	136	2409	1143	291	368	328	300	216	191	794	1140	378	169	633	172	180
Dodge	226	210	507	3860	610	1206	38	355	440	268	3599	1570	1463	935	786	634	420	465	2740	1916	852	297	1553	285	794
Durant	17	92	81	2552	430	164	108	60	103	172	792	330	646	190	204	29	158	184	469	678	461	39	642	137	221
Essex	239	84	163	2620	482	1366	130	506	179	134	3126	1907	1071	785	768	240	924	762	4228	3427	1028	106	1666	237	402
Ford	9241	2773	8089	59061	8514	10495	2514	11131	11119	3469	54661	24482	24511	15035	12624	9052	4959	11239	34578	59391	24311	8518	29286	3724	13905
Franklin	3	11	10	486	28	188	15	61	59	10	493	64	29	19	39	22	36	66	373	129	17	2	105	40	12
Gardner				88	12	5					171	11	1	4	2	19	3		41	2	16		92		6
Graham	121	95	131	2103	333	622	14	389	195	106	1576	609	476	231	175	168	124	395	953	1176	677	82	889	79	226
Hudson	123	57	56	1663	260	612	63	319	162	67	1576	850	551	477	229	154	301	307	1569	1754	496	59	540	141	139
Hupmobile	102	94	55	1410	176	555	48	144	168	31	1805	418	374	191	235	155	126	301	1110	778	465	79	615	98	192
Jordan			1	14	3	45	2	12			49	24	1		7		1	13	43	52			14		
La Salle	53	17	57	759	72	326	48	93	70	3	826	115	73	33	41	35	68	103	606	435	141	18	219	21	21
Lincoln	15	7	17	324	12	52	6	36	21	1	398	68	41	25	26	17	14	29	143	139	43	15	83	3	27
Marmon	35	48	20	521	150	181	8	124	60	12	702	585	190	80	132	77	55	75	433	379	133	27	279	89	78
Nash	95	160	169	2578	472	837	73	217	139	124	2792	783	698	522	226	493	423	446	2269	821	669	299	1026	236	287
Oakland	24	61	49	1255	156	469	59	151	74	61	1224	468	306	266	133	112	161	263	680	945	468	27	516	99	128
Oldsmobile	66	148	75	1974	273	627	72	185	274	96	3279	1556	1154	453	230	187	343	452	1580	2533	918	72	1574	124	585
Packard	69	54	22	1822	118	654	101	180	102	19	1848	331	198	92	120	100	147	264	1488	937	437	26	430	13	100
Peerless	1	15		183	12	59	1	3			358	57	23	48	20	19	30	32	255	61	18		81	3	12
Pierce-Arrow	7	6	17	438	46	171	12	36	29		302	57	28	27	26	20	25	66	431	90	77	5	164	10	7
Plymouth	230	121	482	1670	475	613	114	354	290	192	3233	1613	1684	822	928	311	597	524	1642	2543	2062	133	1555	310	986
Pontiac	138	130	220	2738	508	1135	221	404	234	176	4049	2019	1673	1149	544	486	601	917	2575	2826	1847	194	1950	279	733
Reo	17	6	15	680	49	325	2	93	28	14	500	139	100	95	115	27	56	87	577	590	131	25	157	50	40
Studebaker	234	323	115	4823	345	983	68	141	355	131	3409	1441	814	464	393	251	428	586	2080	1479	1019	152	826	215	565
Stutz		4	1	47	12	21		1	2	2	127	21	10	21	8	4	3	4	38	4	4		31		3
Viking	3	11	2	127	11	23	6	13	26	9	187	73	28	14	6	6	5	11	76	146	37		53	8	28
Whippet	90	51	66	378	236	129	27	107	64	90	839	592	730	361	356	62	94	217	335	492	687	79	1197	136	485
Willys	57	112	41	872	366	301	57	149	123	74	1623	782	1098	576	429	111	253	297	820	889	1064	44	1134	178	486
Willys-Knight	12	51	30	1004	147	199	13	58	32	13	743	151	168	160	110	66	97	114	685	212	247	25	307	64	153
Windsor				88		1			1		133	2		3	4	5		51	7	2	8		111		
Miscellaneous	5		2	189	4	26	3	3	9		168	30	26	4	5	1	5	7	33	42	17		106	6	17
Totals	18309	7174	16504	137327	21844	32797	5798	23317	22225	8266	137888	59373	60219	35823	28482	19845	14833	28917	85390	114776	56112	17380	72389	10082	32376

NEW PASSENGER CAR REGISTRATIONS FOR FIRST

Name of Car	Alabama	Arizona	Arkansas	California	Colorado	Connecticut	Delaware	Florida	Georgia	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota	Mississippi	Missouri	Montana	Nebraska
Auburn	17	128	7	868	100	431	77	87	36	23	1581	715	276	135	116	71	14	96	547	387	262		305	92	59
Buick	813	454	712	9328	1462	2318	345	1215	1063	408	8117	2826	2025	1975	745	737	914	1599	5249	8537	1756	459	2934	658	1727
Cadillac	26	30	44	1060	39	350	47	117	36	5	1142	167	61	59	62	30	58	82	619	490	67	16	197	23	36
Chevrolet	7476	2722	5749	28340	5509	6596	1342	6930	7150	2430	32141	19914	20316	12529	9925	7137	3271	8453	16530	39166	13399	6500	21415	4048	11499
Chrysler	330	238	521	5330	544	1374	72	669	359	141	4465	1551	801	666	658	522	462	817	2800	2812	1029	334	1162	380	636
DeSoto	87	334	363	4213	512	1173	7	282	311	190	3275	1690	614	681	557	361	196	309	1408	3178	567	246	848	260	463
Dodge	572	479	1025	6253	1161	1661	69	664	657	439	6016	2761	2275	1706	1355	962	551	830	3820	4179	1534	551	2569	772	1521
Durant	86	386	273	5499	739	342	186	52	72	547	1769	643	1471	788	480	58	202	378	706	1803	1037	71	1436	431	735
Essex	718	495	499	9027	1658	2905	368	1063	512	385	10048	6534	3390	2568	2270	653	1781	2043	9132	17968	2866	292	4213	831	1105
Ford	10410	3862	11903	58148	11662	9808	2432	11292	12530	4137	55087	31158	29565	21022	14898	12449	5422	11389	30285	74265	28980	10685	30867	5588	19581
Franklin	14	30	15	694	32	278	24	92	99	12	392	77	29	50	43	26	90	106	671	86	46	1	178	79	19
Gardner			5	259	13	30		4	1	4	161	38	2	9	26	21	13	7	95	121	29		175		14
Graham	177	284	208	4140	438	1119	42	500	394	141	4098	1430	897	539	451	300	171	437	2102	3659	1081	25	1134	348	616
Hudson	263	209	128	4308	523	909	101	479	210	136	3764	1666	895	1088	431	252	440	564	2670	4672	856	140	927	288	288
Hupmobile	116	141	94	2092	206	799	48	298	220	50	2432	575	450	303	298	197	92	371	1618	2132	563	113	827	129	206
Jordan	1	2		135	7	36		33	3		91	62	11		13	14	2	11	91	31	12		18		3
LaSalle	57	26	93	1213	93	460	76	160	76	4	1439	195	115	94	132	62	122	145	1089	847	157	22	317	21	47
Lincoln	17	6	22	484	18	90	6	43	19	7	576	84	50	25	36	25	21	45	201	253	69	8	121	7	41
Marmon	36	112	77	1147	280	416	9	39	53	14	1176	1054	313	154	130	77	167	184	848	1236	217	3	454	157	124
Nash	203	478	494	6146	1005	1766	269	561	349	257	7761	1908	1658	1595	513	1001	752	922	4450	2505	1498	457	1902	685	824
Oakland	95	152	105	1958	208	560	96	216	107	73	2353	747	390	324	158	180	147	233	912	1426	630	31	636	138	266
Oldsmobile	96	364	143	4308	541	1019	113	344	258	151	5332	3429	1724	1056	629	384	464	658	2233	6638	1565	92	2480	349	1003
Packard	111	101	48	2648	153	1087	103	231	125	23	2848	548	257	149	242	120	224	323	2497	1695	481	24	546	51	115
Peerless				307	25	110	19	9			491	135	78	66	40	33	90	89	402	178	54		224	5	56
Pierce-Arrow		13	10	451	55	192	15	39	26	3	291	85	13	45	37	30	18	78	416	159	68		241	15	19
Plymouth	342	257	711	2509	857	864	124	487	483	300	4356	2103	1992	1390	980	544	622	789	1875	4164	2382	357	1676	728	1361
Pontiac	460	497	636	6287	1252	2454	415	791	561	351	10613	5320	3406	2839	1218	1246	896	1545	5243	10536	4023	330	3850	799	2235
Reo	35	15	49	1238	85	447	11	107	82	36	959	240	141	246	173	53	208	124	942	997	239	46	289	97	78
Studebaker	255	543	204	6982	531	1394	125	316	289	223	5215	2698	956	978	595	368	425	553	2808	2925	1367	70	1348	423	811
Stutz	8	7	2	165	33	32		15	9	1	253	117	22	23	14	12	15	37	81	37	32	1	60		2
Viking	3	10	5	244	17	60	7	13	6	6	305	101	59	19	26	10	16	22	76	272	37		32	13	22
Whippet	958	501	877	4047	1693	1538	239	947	1082	515	7766	5354	5697	3620	2563	633	868	1368	3396	8188	4522	661	6569	1078	3669
Willys-Knight	42	146	96	3463	324	489	40	131	82	86	1553	637	498	307	243	117	192	285	1582	1234	776	80	750	196	371
Windsor		1	4	245	10	15		1			148	14	15	20	17	2	8	2	25	10	26		160		16
Miscellaneous	37	9	23	2088	45	160	4	51	18	9	2106	484	180	150	100	21	52	126	777	581	207		422	89	77
Totals	23864	13032	25195	185624	31830	43282	6836	28278	27278	11107	190120	97060	80642	57217	40174	28708	18986	35020	108196	207367	72433	21615	91282	18778	49645

Combined reports: Buick and Marquette, Marmon and Roosevelt, Erskine and Studebaker, Blackhawk and Stutz in both tables.

Personal Briefs

Newark, N. J., Oct. 8.—Glen W. Tisdale, local Hupmobile distributor, and Mrs. Tisdale are on their way home from Detroit in one of the latest model eight-cylinder Hupmobiles. The car Mr. Tisdale is driving home is an eight-cylinder, 137-inch wheelbase, 133-horsepower, five-passenger victoria coupe.

Green Bay, Wis., Oct. 8.—Elmer Rogalska, formerly district manager for Nash Sales, Incorporated, Milwaukee, has been named in charge of dealer activity in this district, according to Math Schleis, president of the Green Bay Nash Company.

Seattle, Wash., Oct. 8.—Wm. Potts has been appointed manager of the newest retail branch of Transport Corporation, state distributor of Willys-Overland products. The location is 6801 Greenwood Ave., Seattle. Potts was formerly service manager at the central dealership.

CLASSIFIED ADVERTISEMENTS IN THE AUTOMOTIVE DAILY NEWS BRING RESULTS

EIGHT MONTHS OF 1930 BY MAKES AND STATES

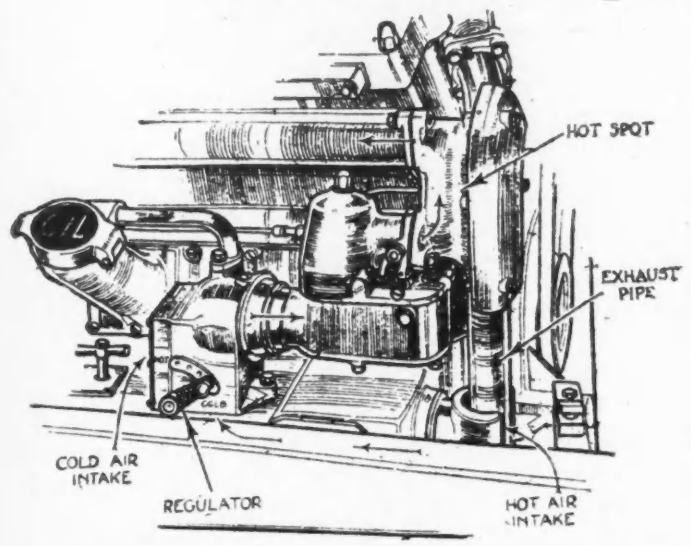
NAME OF CAR	Nevada	N. Hamp.	N. Jersey	N. Mexico	New York	N. Ca'lina	N. Dakota	Ohio	Oklahoma	Oregon	Penn.	Rh. Island	S. Ca'lina	S. Dakota	Tenn.	Texas	Utah	Vermont	Virginia	Wash'ton	W. Va.	Wisconsin	Wyoming	D. of Col.	Totals
Auburn	28	53	735	13	2508	11	5	599	57	37	801	89		16	42	97	58	33	48	151	48	153	5	76	9,137
Austin	9	7	128		265	22	3	131	23	60	253	8	16	9	42	79	12	8	32	27	15	33	2	25	2,239
Buick	186	407	4960	387	14238	787	174	3800	1863	736	7585	735	375	257	933	3941	255	371	983	1545	491	2502	187	731	88,111
Cadillac	5	34	555	4	1647	36	1	417	73	27	592	48	5	1	56	146	20	18	39	53	25	147	5	56	7,448
Chevrolet	501	1938	14671	1631	38419	6571	3214	27091	14012	4198	31087	2546	4469	4438	8753	28804	1986	1413	10269	5868	6072	15090	1013	3094	494,217
Chrysler	117	237	2947	103	6806	632	180	2531	607	338	5592	467	236	282	467	1499	150	246	647	851	493	1186	122	268	47,887
Cord	3	3	60	1	288	2	2	85	20	5	92	13		4	12	22	10	9	11	18	9	30	2	8	1,562
De Soto	77	161	1082	81	3249	219	93	2141	363	272	2809	423	167	88	250	1540	145	73	373	662	291	661	36	145	29,179
Dodge	137	172	2006	139	4772	680	184	2750	1437	455	4606	441	208	431	770	2250	254	207	836	684	810	1485	159	218	52,120
Durant	52	85	649	39	1369	62	131	969	224	547	1517	58	25	247	103	608	225	43	183	822	153	572	25	106	17,773
Essex	91	305	2413	60	6676	481	150	3704	357	399	4583	369	198	244	483	788	249	347	708	727	657	1552	96	391	52,608
Ford	900	3260	29014	2348	77614	12396	4456	52419	18615	7643	59151	4366	6838	6159	14025	41323	3550	2510	15493	12588	8916	22546	1546	7016	871,374
Franklin	4	27	328	2	1214	34	5	459	61	69	587	44	13	7	41	142	21	17	44	86	43	105	7	36	5,713
Gardner	5	1	21		98		2	71		21	78	5			3	18		1		2	1	26			826
Graham	30	97	1034	30	3082	191	87	1487	262	320	2481	148	54	88	280	658	156	139	260	334	382	773	26	221	24,565
Hudson	76	117	1349	35	3347	274	57	1624	212	214	2304	167	125	117	184	382	108	130	238	346	226	770	38	149	25,114
Hupmobile	24	85	1151	2	2914	53	14	1337	190	166	2175	121	81	132	268	447	59	91	316	441	142	385	43	177	20,539
Jordan	1	5	77		255			85	2	3	92	2				21			3	14	4	18		9	872
La Salle	15	22	574	20	1417	46	6	392	97	43	755	82	20	9	92	202	13	42	68	53	46	124	5	61	8,457
Lincoln	4	8	131	3	702	26	2	183	41	25	198	23	5	3	31	84	6	5	26	22	11	41	1	28	3,171
Marmon	13	38	440	11	1405	58	76	716	78	88	850	21	43	33	64	299	29	25	109	80	143	182	10	50	9,334
Nash	51	267	2510	55	6505	176	189	1928	379	255	3382	242	101	192	252	758	148	194	312	397	358	1756	72	200	37,533
Oakland	9	72	942	25	2320	106	78	1289	269	158	1720	116	58	93	111	475	54	87	243	221	252	676	17	167	17,713
Oldsmobile	60	191	2246	62	5808	212	162	3263	418	297	3860	232	106	547	307	757	124	142	283	652	358	1373	74	388	41,102
Packard	22	65	1532	16	4105	91	13	1192	242	105	2210	166	56	44	166	365	62	79	181	162	138	336	12	245	21,277
Peerless		12	264		455	4		470	8	1	368	61		1	4	45		14	44	28	9	73		119	3,271
Pierce-Arrow		18	455	1	1083	6		223	89	22	534	71	2	6	79	165	4	13	40	18	21	110	1	43	5,101
Plymouth	90	208	1246	101	4532	503	327	3709	701	369	5206	312	249	511	538	1800	88	322	697	913	645	1746	112	260	48,669
Pontiac	40	234	1945	90	5718	492	310	4254	1179	446	4270	477	235	322	498	2057	176	194	1014	625	649	2246	61	460	55,738
Reo	3	90	359	5	1028	15	12	451	109	99	647	174	26	37	47	425	23	39	74	119	95	158	7	42	8,002
Studebaker	86	187	2294	53	6173	139	181	2334	367	411	3404	236	102	278	569	1229	137	115	340	721	314	1334	61	291	42,996
Stutz		1	33		120		1	40	6	1	26	1			5	7	8		6	1	6	12	1	2	645
Viking	7	4	132	4	349	8	9	121	33	17	134	5	3	22	32	50	14	8	11	38	16	58	2	18	2,004
Whippet	17	49	311	44	1283	171	209	1311	480	67	958	43	49	256	266	632	28	135	271	251	321	563	29	35	15,679
Willys	20	134	844	39	3141	150	209	2358	426	123	2502	193	32	275	267	849	30	118	365	358	446	1055	35	50	25,955
Willys-Knight	18	54	763	27	2028	29	50	977	95	114	971	130	5	42	63	270	12	47	107	266	117	203	17	65	11,331
Windsor			16		54	1		25	11		166				13	11		3	1			2			719
Miscellaneous	1		68		275	1	5	66	12	12	86	7	1	2	8	56			24	3	4	63		60	1,462
Totals	2702	8648	79885	5431	217262	24685	10597	127002	43418	18163	158632	12642	13903	15193	30124	93301	8214	7238	34699	30147	22727	60145	3829	15310	2,111,443

EIGHT MONTHS OF 1929 BY MAKES AND STATES

Name of Car	Nevada	N. Hampshire	New Jersey	New Mexico	New York	North Carolina	North Dakota	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	South Carolina	South Dakota	Tennessee	Texas	Utah	Vermont	Virginia	Washington	West Virginia	Wisconsin	Wyoming	Dist. of Col.	TOTALS
Auburn	23	41	1031	24	3046	20	16	1118	160	70	1338	144		49	58	201	8	15	87	231	62	227	16	106	14,521
Buick	268	456	4841	356	14763	1397	352	6421	2758	924	8756	852	573	583	1268	5521	402	532	1226	1940	820	3400	427	914	118,126
Cadillac	23	24	610	15	2309	56	3	491	80	29	690	103	16	6	94	179	32	33	60	56	38	102	9	113	10,034
Chevrolet	633	2021	16878	2078	44311	10361	3977	39921	15919	4075	35361	2963	6011	5190	10974	38110	2773	1676	10506	6787	8147	15988	1267	2935	589,349
Chrysler	144	255	2853	161	8450	1141	262	3358	1042	423	6186	629	383	306	692	2337	193	306	658	1204	653	1331	189	415	62,244
DeSoto	74	236	1723	150	4900	538	198	3318	586	245	3754	500	275	193	424	2712	163	167	482	724	510	1108	86	130	45,321
Dodge	211	279	2699	308	7429	1426	468	4515	3005	849	6320	644	373	794	1345	4865	478	271	1238	1267	1278	2181	429	227	87,281
Durant	90	212	847	130	2218	413	332	2166	427	1210	2656	129	102	685	319	1333	660	105	340	1805	306	988	132	70	37,865
Essex	177	708	6059	154	15851	1839	517	14465	1437	1042	13919	1092	588	721	1486	3104	735	777	1837	1910	1655	5197	350	1011	159,955
Ford	1028	2901	23249	2708	59787	20414	7484	63456	27402	9286	57782	3838	10941	8225	17078	59674	4633	2231	16824	13379	9568	25205	1962	6097	972,577
Franklin	12	68	584	4	1629	41	6	477	94	83	932	137	21	8	67	211	24	15	40	100	31	177	9	67	8,019
Gardner	1	3	79		147	1		97	6	19	134	14			17	16	2			4	5	41	1	4	1,618
Graham	36	156	1879	85	5458	219	197	3508	510	295	3800	471	78	294	415	1407	287	164	342	582	619	1382	45	403	47,363
Hudson	116	199	2187	58	5905	663	117	3751	546	326	4166	279	280	180	283	967	211	279	442	656	345	1710	119	262	50,254
Hupmobile	18	82	1807	19	4518	193	39	2191	317	164	3131	216	105	195	327	847	124	114	382	411	191	491	58	299	30,609
Jordan	6	16	90	1	273			275	11		350	10			4	42			9	7	30	25	1	12	1,738
LaSalle	31	44	822	17	2414	87	10	583	151	61	1229	195	35	14	185	295	33	55	101	95	90	140	14	125	13,888
Lincoln	3	8	192	2	926	27	8	270	36	27	253	38	8	1	34	90	9	4	21	32	37	51	3	41	4,395
Marmon	17	115	692	31	2299	65	107	1519	100	134	1606	118	41	88	63	487	48	36	154	210	247	396	50	187	17,287
Nash	96	471	4780	126	13544	472	462	4788	1075	550	6814	593	218	485	800	2235	303	569	594	948	692	3596	294	523	84,990
Oakland	25	93	1087	40	2754	360	150	1808	582	224	2036	111	151	115	169	938	54	90	341	293	227	861	30	193	24,873
Oldsmobile	70	269	2926	126	8315	633	384	7455	757	581	6186	370	275	800	567	1938	254	256	567	1118	672	2583	181	608	73,269
Packard	42	120	2274	20	6526	183	35	1838	371	129	3398	279	74	51	277	520	88	113	255	256	205	434	18	310	32,566
Peerless	6	11	438		905	10	1	1128	33		811	94		1	2	101		31	43	45	24	121	3	126	6,344
Pierce-Arrow		12	534		1293	4	3	307	93	34	681	94	3	2	41	234	5	24	38	39	36	125	38	63	6,022
Plymouth	70	263	1830	191	5657	980	556	4242	1203	632	5245	417	433	802	767	2978	206	431	880	1415	845	2400	264	148	65,108
Pontiac	77	443	4123	195	11772	1745	825	11038	2861	1018	8295	939	762	895	1165	5482	387	299	1683	1350	1146	4918	178	980	130,429
Reo	9	60	554	21	1461	51	19	738	295	152	1061	279	37	49	98	817	48	48	120	206	161	229	26	119	13,595
Studebaker	96	234	3117	155	8414	421	261	4079	803	594	4739	439	149	454	799	2251	241	257	426	1200	457	1895	148	397	64,428
Stutz		4	92	1	455	2	6	167	32	6	203	4	2	2	26	22	20	8	7	28	41	42	5	9	2,162
Viking	8	9	164	8	479	19	7	214	28	20	180	17	10	16	19	69	13	14	17	39	26	63	2	30	2,852
Whippet	64	470	3080	437	12882	2056	1427	13519	4217	783	9702	596	578	1853	1936	7612	435	695	1964	1299	1717	4608	282	346	140,907
Willys-Knight	26	120	1568	77	4591	167	236	3047	305	297	2639	270	24	198	157	800	125	161	229	531	266	728	56	138	30,476
Windsor			67		148		1	55	34		113	2		2	14	37		2	1	4	1	11		10	1,241
Miscellaneous	9	37	395	18	1512	22	70	1945	69	62	969	124	2	57	81	121	17	20	68	59	69	384	21	89	14,036
Totals	3509	10440	96151	7716	267341	46026	18536	208268	67345	24344	205435	17000	22548	23314	42051	148553	13011	9798	41982	40230	31217	83138	6713	17507	2,965,742

Production--Engineering--Factory

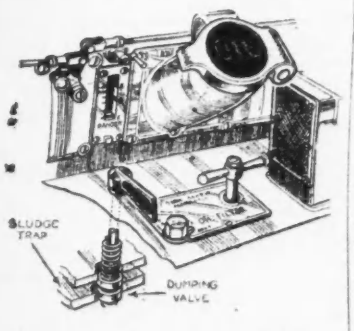
New British Daimler Has Twelve-Cylinder, V-Type Sleeve-Valve Engine



CARBURETOR induction system hot spot and air intake on new Daimler 30-40. (Reproduced from the Autocar)

Particular prominence is given the description of the new British Daimler 30-40 horse power car in the September 19 edition of the British publication, the Autocar. Some of the interesting features are given herewith:—

The engine used in the new Daimler is a twelve-cylinder, sleeve-valve, with the cylinder blocks arranged in a "V." The bore and stroke are 73x104 mm. (2.88x4.1 in.). Its displacement is 5.296 c.c. (323 cu. in.). The rated horse power is 40.18. The



OIL LEVEL indicator and sludge-dumping device. (Reproduced from the Autocar.

crank case and cylinder blocks are of aluminum alloy. Aluminum alloy pistons of the constant clearance type are used.

The carburetor air is led through a special chamber, which has a two-way trap capable of being set to supply the desired proportions of cool air through one large port and warm air through the second port. Into the top of the carburetor air intake a pipe is led from the crank case breather for the double purpose of eliminating fumes from the engine compartment and providing a degree of top cylinder lubrication.

The oiling system is supplied by two helical toothed gears submerged in the engine sump, one of which forces oil under pressure to the moving parts, while the second causes the oil to circulate through a special radiator at the front of the car. Besides the usual filters an oil cleaner is provided by a handle passing through the oil pan and situated just below the oil filter. A small handle located near the oil level indicator is provided to open a dump valve in a sludge trap in the bottom of the crank case. If the handle is twisted and lifted to the height of a catch provided, a port in the crank case is opened, which permits all the oil to be drained.

The Fluid Flywheel

The engine is attached to the frame at four points, separate from the gear box, which is independently mounted. Between the two units is the fluid flywheel, used on previous models, which takes the place of the normal clutch, and, it is stated, gives remarkable elasticity to the transmission and permits driving the car in top gear at less than half a mile per hour.

It comprises only two moving parts and is automatic in action. The drive is transmitted from the engine by means of the interchanges of energy in rapidly circulating currents of oil.

The fluid clutch is always engaged, but does not become effective until the engine is turning approximately 600 revolutions per minute. The only time it is necessary to change gears is in starting up an unusually steep incline. The clutch can then be engaged by depressing the accelerator pedal.

The mechanism consists of two parts, a flywheel or driving member and a cylindrical casing filled with oil. When the flywheel is rotated the oil is forced against the cells of the driven member. At low speeds no torque is transmitted to the driven member—that is, the clutch slips and the car does not move. As the engine speed rises, power is transmitted more completely, and at ordinary road speeds it is claimed there is only slight loss in power.

Transmission

A pre-selective, self-changing four-speed gear set is used, which is controlled by small levers mounted on the steering wheel. It is claimed that its use abolishes noise, difficulty in gear shifting and, in conjunction with the fliud flywheel, removes all shock from the transmission as a whole.

Brakes

The four-wheel brakes are operated through a Dewandre vacuum servo system. A single adjustment under the hood is provided for the complete set of brakes.

HANDY OIL BAFFLE FOR MODEL A FORD

Handy Whirling Oil Baffle

The Whirling Oil Baffle is a new development of the Handy Oiler Company, Danville, Ind.

It is made of sheet metal formed to fit in the breather of Model A Ford. A pair of vanes or baffles is arranged so that mist that rises from the vent is whirled and thrown to the sides of the breather and returned to its source. Installed by removing the dust cap and inserting into the breather pipe, after which the cap is replaced. The baffle need not be removed when adding oil to the engine. Retails at 35 cents.

S. A. E. PRODUCTION MEETING CLOSES

(Continued from Page 3)

cussed are ones in which the production men, eager to cut costs and keep up quality, are greatly interested. R. L. Templin of the Aluminum Company of America went outside of his paper, "New Developments in Machining Aluminum and its Alloys," because of the many questions fired at him on this subject, which is very much in the public eye at present.

In his replies Mr. Templin said: "As I have pointed out in the paper, those alloys of aluminum containing an appreciable amount of silicon are the toughest ones to machine that there are. At the same time, they are very desirable for certain uses. Notably the pistons in gas engines. They have a comparative low co-efficient of thermal expansion, and for that reason are quite desirable. It may not be generally known, but we are now making forged pistons of the silicon alloys for the radial aircraft engines, and it is, of course, necessary to machine these pistons. It is necessary to machine these with cemented tungsten carbide tools of a certain shape, having certain cutting angles in order to get best results."

At this point Chairman Bohannon cut in to point out the necessity of a proper knowledge of how to machine aluminum and how to use tungsten carbide tools. In answer to a question relating to the threading and tapping of aluminum and also reaming operations, Mr. Templin stated further that in his opinion, one of the best schemes for tapping is to use a spiral fluted type of cap, preferably of high speed steel, but especially ground for the purpose.

As to coolants, he believes pure lard oil is the best, but the cost of that probably is prohibitive for certain work, so he advises the use of a mixture of kerosene and lard oil. His company also uses, where fire hazards will not permit of the above, a soluble cutting oil, mixing it a little thicker than normal steel practice. His company uses about from ten to fifteen parts of water for one part of soluble oil.

One of the features of the discussion of the paper of W. H. McCoy of the General Motors Corporation, "The Future Development of Tungsten Carbide as a Cutting Tool," was the talk by Roger D. Prosser of Thomas Prosser & Sons of New York, who are Krupp representatives in this country. Mr. Prosser showed a photograph of the remarkable durability of cemented tungsten carbide and also the picture of a tool placed in a machine in March, 1930, which six months later was still working perfectly, cutting clean and having never been ground or removed from the machine. It has been in continuous daily production during that period. The best high speed steel on this operation had to be reground several times daily, Mr. Prosser said. Another point which he stressed is the high heat conductivity of cemented tungsten carbide.

Among those taking part in this discussion were: W. E. Smith, W. W. Nichols, R. L. Templin, Mr. Robbins, John Younger, J. E. Wells, W. H. Graves, A. H. Lyon, J. Gesdelin, C. E. Walters and T. J. Litle. At the afternoon session John Younger of the Ohio State University presided, and papers read were: "The Effect of Time on Production Cost," by Paul N. Lehoczky of the Ohio State University, and "The Tool Engineer's Place in Mass Production," by O. B. Jones of the Detroit School of Applied Science.

Tolerances on Gauges

(Continued from Page 6)

full benefit of the maximum and minimum part size. It is good practice to have gauges inspected for size at regular intervals; in the case of short runs when the gauge is put on the job, or in the case of continued runs at intervlas depending on the amount of wear that is found by experience to exist. In some cases it has been found necessary to inspect gauges every hour, in others five hours, once a day, or once a week.

Metal is elastic, and in the case of a plain plug and ring of the same size, they will go together quite readily. In fact, the plug may be slightly larger than the ring or the ring slightly smaller than the plug, and with the ordinary amount of lubricant that is on the gauge it will require only the amount of pressure that would be ordinarily exerted by the operator in putting a plug into the hole, to have them come together. They will come apart quite readily if not allowed to set too long. A drive fit of 0.0001 of a fraction of 0.0001 inch would not be very effective, so that gauges which come together without any looseness are substantially of the same size. It has been demonstrated in the case of size blocks that the oil film is extremely thin so that plug gauges or setting plugs can be used for establishing sizes without any allowance being made for size.

Setting plugs to which adjustable gauges are set should be made so that the gauge would be "safe" for the job on which it is to be used, as there is naturally no wear allowance on adjustable gauges. This applies to check gauges for rings and ring thread-gauges where the "Go" check is made with the gauge production tolerance applied minus. We have the same variation in practice on the setting plugs for the "Not Go" ring gauge as we do on the "Not Go" plug gauge. In general, the "Not Go" setting plug is made as near the "Not Go" size as practical by splitting the tolerance. In this case the National Screw Thread Commission's Report calls for the "Not Go" check to be made with a plus tolerance.

Measurement of Gauges

In checking gauges for wear, measurements are an important factor. In general, soft gauges do not permit of accurate measurement, principally because it is difficult to obtain a flat, smooth finish and second, because of the soft nature of the material the measuring surfaces are apt to sink in to a certain extent. This is particularly true in measuring soft threads with wires.

Errors in reading micrometers and measuring machines are usually less than the errors in the instruments themselves, that is, you may be able to read the micrometer and even split 0.0001 inch, but the inaccuracies in the micrometer screw or the anvil surface through wear may be 0.0001 or 0.0002 inches.

Pressure in making measurements is an important factor, particularly in the use of balls, rolls or wires. In the case of wire measurements of threads the practice approved by the Bureau of Standards is that threads finer than 20 per inch are checked with a measuring pressure of 8 ounces, and threads 20 per inch and coarser are checked with 3 pounds pressure. They recommend that the wires be calibrated, crossed over a roll 0.750 inch in diameter. Pressure is also an important factor in checking taper ring-gauges. They should be thoroughly cleaned and the test plug inserted until it seats, no pressure being applied. Taper plugs are usually checked with wires or rolls.

Effect of Change in Temperature

On large work temperature is a factor in checking. The change due to temperature is approximately 0.0001 inch in a length of 16 inches for each degree. With a gauge 32 inches long with a tolerance of 0.0002 inch, one degree difference in temperature would take up the full tolerance.

Testing for Gauge Wear

In measuring the gauge for wear it is important that the checking tools check the point of wear in the gauge. For instance, a snap gauge with flat anvils on one side and round anvils on the opposite side used on gauging round shafts, will have a tendency to wear a groove through the flat anvil. These gauges cannot be accurately reset with plugs unless the flat anvil has previously been lapped flat to remove the groove.

Thread gauges wear more rapidly at the crest of threads.

Ring gauges that show practically no wear when checked with a setting plug with basic outside diameter will frequently show considerable wear when tested with a check that is truncated to 60 per cent. of the full depth.

These inequalities of wear on the gauging surface cause most of the disputes between the production and inspection departments. Two gauges may appear to be of the same size according to the check plug, but due to inequalities of wear on the gauging surface, they will pass work radically different.

The wear of plungers on indicating gauges, giving them a slight side movement, is a frequent source of error.

Worn gauges should be rejected when they have reached the wear limit that has been set up. In the case of "Go" gauges, this should be basic size, although in some instances it is economical to permit an undersize condition. A definite figure should be set for each case and there should be a definite period for gauge inspection so that the gauge will be withdrawn from production work at the proper time.

TELL-TALE INDICATES HEADLAMP OPERATION

TELL-TALE for Motor-Car Headlamps

Dr. W. Kennedy Fenton, Toronto physician, has invented a decorative little device for attaching to the top of the headlamps which indicate to the driver whether or not the lamps are operating. In the illustration the device is indicated by the maple leaves, the backs of which are luminous at night from the light reflected by the headlamps.

HOTWAVE WINDSHIELD WIPER FORMED AT BUFFALO, N. Y.

Buffalo, N. Y., Oct. 8.—With a capital of $20,000 in preferred stock and 1,200 shares of no par common, the Hotwave Windshield Wiper Corporation has ben organized and incorporated by I. H. Morris, Rochester, N. Y., and associates. It is planned to establish and operate a factory in this city for the manufacture and distribution of a patented electric windshield cleaner, a feature of which is an element to retard frosting of windshields.

KOOLMOTOR

GASOLENE AND OIL

combine to give perfect ANTI-KNOCK performance

CITIES SERVICE OILS
ONCE - ALWAYS

WISE motorists do not depend *solely* on anti-knock gasolene to prevent engine knocks. They place part of the burden of maintaining anti-knock performance on their oil.

Koolmotor Gasolene and Oil combine to give perfect anti-knock performance.

Koolmotor Gasolene—the *original* high test, anti-knock green gas—is refined from crudes that contain inherently high anti-knock qualities. Special processing at the refinery and careful testing in the laboratory insure Koolmotor's ability to give knock-free performance.

The final and most conclusive proof is furnished by actual road tests where Koolmotor is forced to climb the steepest hills and respond to impulsive pressure on the accelerator without knocking. You can feel sure that, before a single gallon of Koolmotor Gasolene is ever offered for your use, it has proved, in many ways, its ability as a real anti-knock motor fuel.

Koolmotor Oil—the *perfectly balanced* motor oil—lends valuable assistance in producing anti-knock performance. It maintains its body at high temperature and prevents oil from working up past the pistons and forming carbon—a condition which increases fuel knocks.

For perfect anti-knock performance you can recommend Koolmotor Gasolene and Koolmotor Oil to your customers as the ideal combination.

CITIES SERVICE OIL COMPANY
60 Wall Street, New York

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Cities Service Oils & Gasolene

NASH

ANNOUNCES

Three New Eights and a Low Priced Six

Never was such motor car quality offered at prices so sensationally low. The literally startling difference becomes at once apparent when you contrast the prices of the new and finer Nash series, with prices of corresponding models a year ago.

Coming at this time, these wholly remarkable values constitute an achievement of special import, not only to those who buy—but to those who manufacture motor cars, as well.

The unique example in value-giving thus provided the industry was planned last November. At that time, C. W. Nash and the strong group of executives surrounding him, clearly foresaw present conditions. They at once began to design cars affording value so great, so unmistakable, as to overcome all buying reluctance.

The result is instantly apparent. Even casual inspection of the four new Nash cars establishes the fact *that nothing even remotely approaching them in downright dollar value has ever been available in their respective price fields.*

The low non-productive Nash overhead, the fact that Nash operates entirely without the heavy financial burden of borrowed capital, and the foresightedness of the Nash organization, alone enable Nash to offer so much for so little.

These three factors have combined to produce in these cars beauty and luxury and performance so notable, at prices so low by contrast, as to win for Nash a still larger place in the minds and the hearts of the American public.

(2319)

A NEW DEAL FOR TODAY'S DOLLAR

STUDY THESE SENSATIONAL PRICES!

Compare what is probably the most remarkable achievement of Nash in greater value-giving—the New Six—with the Single Six it succeeds. The New Six offers a multitude of superiorities—at prices which range from $160 to $140 below the prices of the Single Six.

Body Style	The New Six W. B. 114¼"	Last Year's Six W. B. 114¼"	Price Difference
Sedan (4-door)	$845	~~$1005~~	—$160
Coupe	$795	~~$940~~	—$145
Coupe (rumble seat)	$825	~~$980~~	—$155
Sedan (2-door)	$795	~~$935~~	—$140

Compare the New Eight-70 with its two additional cylinders, its longer wheelbase, its larger, more luxurious body, with the six-cylinder car it replaces. Then consider the remarkable fact that there is actually a basic price differential in favor of the New Eight!

Body Style	The New Eight-70 W. B. 116¼"	Last Year's Six W. B. 114¼"	Price Difference
Sedan (4-door)	$995	~~$1005~~	—$10
Coupe	$945	~~$940~~	+$5
Coupe (rumble seat)	$975	~~$980~~	—$5
Special Sedan (4-door)	$955		

Compare the New Twin-Ignition Eight-80 Series with the 6-cylinder car it replaces. The Eight-80 is larger, longer. Design, appointments, upholstery are finer—prices are radically lower.

Body Style	The New Twin-Ignition Eight-80 W. B. 121"	Last Year's Twin-Ignition Six W. B. 118"	Price Difference
Sedan (4-door)	$1295	~~$1415~~	—$120
Coupe	$1245	~~$1345~~	—$100
Coupe (rumble seat)	$1285	~~$1395~~	—$110
Town Sedan (4-door)	$1375		

Compare the New Twin-Ignition Eight-90 Series, now with a 115 H. P. Engine, with the last year's 100 H. P. Eight. Body appointments are finer, upholstery more luxurious, and prices are far lower!

Body Style	The New Twin-Ignition Eight-90 W. B. 124"-133"	Last Year's Twin-Ignition Eight W. B. 124"-133"	Price Difference
Sedan (4-door)	$1565	~~$1795~~	—$230
Cabriolet	$1695	~~$1875~~	—$180
Coupe	$1695	~~$1915~~	—$220
Coupe (rumble seat)	$1745	~~$1975~~	—$230
Sedan (7-pass.)	$1925	~~$2195~~	—$270
Limousine (7-pass.)	$2025	~~$2385~~	—$360
Ambassador	$1825	~~$2095~~	—$270
Victoria	$1765	~~$2045~~	—$280

(All Prices f. o. b. Factories)